Serial No. 10/584,686 Final Office Action dated 7/28/09 Reply dated 10/07/09

PATENT PD040005 CUSTOMER NO.: 24498

Amendments to the Claims

- 1. (Currently Amended) Method for analyzing an abnormal region on an optical recording medium, including the steps of:
- detecting the change from a normal to an abnormal region;
- making a jump scan perpendicular to the track direction over the abnormal region in response to the detecting step until a normal region is reached at the end of the jump scan;
- obtaining information on the type of abnormal region during the <u>scan by evaluating</u> <u>a track crossing signal jump;</u>
- determining the radial extension of the abnormal region perpendicular to a track direction; and
- determining the type of the abnormal region based on the information obtained during the <u>jump scan</u>.
- 2. (Original) Method according to claim 1, wherein the step of determining the type of the abnormal region further includes:
- differentiating between a first group of types and a second group of types of abnormal region based on the obtained information.
- 3. (Currently Amended) Method according to claim 1, wherein the step of obtaining information on the type of abnormal region during the jump scan further includes evaluating a data signal and/or a track crossing signal obtained from the optical recording medium.
- 4. (Currently Amended) Method according to claim 1, wherein the step of measuring the radial extension of the abnormal region includes one of:
- measuring the time needed for jumping scanning over the abnormal region; and
- counting a number of pulses emitted by a phase locked loop during jumping scanning over the abnormal region, the phase locked loop replicating a track crossing signal obtained before reaching the abnormal region in the jumping scanning step.

Serial No. 10/584.686 Final Office Action dated 7/28/09

PD040005 CUSTOMER NO.: 24498 Reply dated 10/07/09

- 5. (Original) Method according to claim 1, further including the steps of:
- jumping back to the start of the abnormal region;
- reading data stored in the abnormal region; and
- evaluating the data for determining the type of abnormal region.
- 6. (Original) Method according to claim 5, wherein the step of evaluating the data for determining the type of abnormal region includes at least one of:
- evaluating a sync signal included in the data; and
- evaluating the data frequency in the abnormal region.
- 7. (Original) Method according to claim 5, wherein the step of measuring the radial extension of the abnormal region includes counting the number of wrong syncs in the abnormal region.
- 8. (Original) Method according to claim 1, further including the step of storing the position, the radial extension and/or the type of the abnormal region on the optical recording medium.
- 9. (Original) Method according to claim 1, wherein the types of abnormal region include at least one of a groove region, a mirror region, a defect region, a wrong bitrate region and a wrong structure region.
- 10. (Cancelled)
- 11. (Cancelled)
- 12. (Previously Presented) Method according to claim 2, wherein the step of differentiating between a first group of types and a second group of types of abnormal region based on the obtained information includes:
- classifying an abnormal region as belonging to the first group of types if an evaluation of the abnormal region does only take a short time compared with the evaluation of the abnormal region in the second group of types; and
- classifying an abnormal region as belonging to the second group of types else.

Serial No. 10/584,686 Final Office Action dated 7/28/09 Reply dated 10/07/09

PATENT PD040005 CUSTOMER NO.: 24498

13. (Cancelled)

- 14. (Previously Presented) Method according to claim 1, further including the step of:
- differentiating between a first group of types and a second group of types of abnormal region based on the obtained information, wherein
- an abnormal region is classified as belonging to a first group of types if the abnormalities of the detected signal are caused by the physical characteristics of the recording medium; and
- an abnormal region is classified as belonging to a second group of types if the abnormalities of the detected signal are caused by erroneous data.